POLY HI SOLIDUR WORLDWIDE

Material Selection

TIVAR UHMW Product Specifications

Property*	Units	Test Method**	TIVAR 1000	TIVAR Marble/Uniblend	TIVAR 1000 AntiStatic	TIVAR DryGlide	Ceram P	TIVAR Oil Filled
DENSITY	GM/CC	ASTM D-792	0.93	.935 - .945	0.93	0.93	0.964	0.928
TENSILE PROPERTIES		ASTM D-638						
Yield Strength	PSI		3050	2800 - 3553	3000	2770	2800	2600
Tensile at Break	PSI		5800	3600 - 5200	4000	4815	3800	6527
Elongation at Break	PERCENT		200	50 - 350	140	200	300	280
TENSILE MODULUS	PSI	ASTM D-638	120,000	90,100 - 127,500	156,900	118,643	130,970	76,000
FLEXURAL MODULUS		ASTM D-790B						
(1% Secant)	PSI		110,000	86,000 - 101,000	100,000	106,459	99,933	63,818
IMPACT STRENGTH								
Izod Impact		ASTM D-256A	NO BREAK	NO BREAK	NO BREAK	NO BREAK	NO BREAK	NO BREAK
Tensile Impact	FT-LBS/IN^2	ASTM D-1822	715	255 - 540	400	653	750	1366
WEAR PROPERTIES								
Sand on Wheel	MG WEIGHT LOSS	ASTM G-64	100	100 - 250	100	100	85	100
Abrasion Index	1018 STEEL=100	SAND SLURRY	10	10 - 22	10	10	8	12
COF THERMAL EXPANSION		ASTM D-696						
-30° To +60°C	IN/IN/°C		2×10^{-4}	1.8×10^{-4}	2×10^{-4}	2×10^{-4}	1.6×10^{-4}	2×10^{-4}
-54° To +140°F	IN/IN/°F		1.1×10^{-4}	1×10^{-4}	1.1×10^{-4}	1.1×10^{-4}	$.9 \times 10^{-4}$	1.1×10^{-4}
COF FRICTION		ASTM D-1894						
(Polished Steel)								
Static			.15 - .20	.15 - .20	.15 - .20	0.15	0.18	.20 - .25
Kinetic			.10 - .14	.10 - .14	.10 - .14	0.08	0.12	.10 - .15
HARDNESS	SHORE D	ASTM D-2240	68	64 - 70	68	68	70	68
ELECTRICAL PROPERTIES								
Static Decay Time	SECONDS	FTS-101C			< 0.1 SEC			
Dielectric Constant		ASTM D-150	2.30 - 2.35					
Dissipation Factor		ASTM D-150	$< .5 \times 10^{-3}$					
Surface Resistivity	OHMS	ASTM D-257	10^{17}	10^{17}	10^5 - 10^9	10^5 - 10^9	10^{17}	10^{17}
Volume Resistivity	OHMS-CM	ASTM D-257	10^{17}	10^{17}	10^5 - 10^9	10^5 - 10^9	10^{17}	10^{17}
FDA STANDARDS			YES	NO	NO	NO	NO	YES
TEMPERATURE RANGE		ASTM D-648						
MAXIMUM***								
CONSTANT	°F		180	180	180	180	220	180
INTERMITTENT	°F		200	200	200	200	240	200
MINIMUM			N/A	N/A	N/A	N/A	N/A	N/A

* Values are averages and not specifications.

** ASTM test methods are under current procedures.

*** Maximum operating temperatures may reach 250°F (121°C) under no load conditions for steam cleaning purposes.

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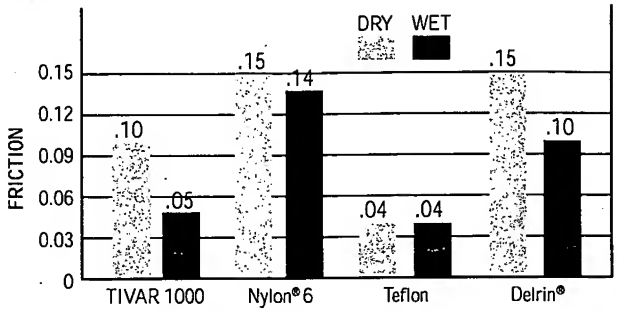
EXHIBIT B

Material Selection

TIVAR UHMW Product Specifications

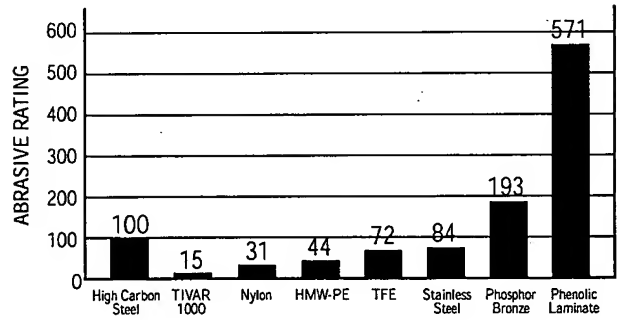
TIVAR CleanStat	TIVAR EXP	TIVAR 1000 PolySteel	TIVAR UV Resistant	TIVAR DS
0.94	0.95	1.45	0.93	0.93
3075 5163 200	2700 5280 300	2334 2755 125	3000 4000 140	3205 5990 400
118,900	101,900	N/A	156,900	154,900
110,230	85,000	108,750	100,000	92,390
NO BREAK 702	NO BREAK 343	NO BREAK 250	NO BREAK 400	NO BREAK 1200
130 N/A	91 9	240 N/A	100 10	90 9
2×10^{-4} 1.1×10^{-4}	1.6×10^{-4} $.9 \times 10^{-4}$	1.8×10^{-4} 1×10^{-4}	2×10^{-4} 1.1×10^{-4}	2×10^{-4} 1.1×10^{-4}
0.15 0.12	.20 .17	.20 .14	.15 - .20 .10 - .14	0.18 0.12
68	70	64	68	68
			< 0.1 SEC	
$10^7 - 10^{10}$ $10^7 - 10^{10}$	10^{17} 10^{17}	10^{17} 10^{17}	$10^5 - 10^9$ $10^5 - 10^9$	10^{15} 10^{15}
YES	NO	NO	NO	NO
180 200 N/A	180 250 N/A	180 200 N/A	180 200 N/A	180 200 N/A

Comparison of Dynamic Coefficient of Friction on Polished Steel



Abrasion Wear Resistance

Sand Slurry Test: Each material was rotated 24 hours @ 1750 r.p.m. with 50/50 sand/water slurry. Carbon steel = abrasive rating of 100. Weight loss for each material is relative to 100. The lower the figure, the better the abrasion resistance.



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